

Remarks

Claims 1-31 and 121 are before the Office for consideration. The Office objected to the language of “contact the cells” in Claim 1. Applicants amended Claim 1 to recite “are capable of contacting the cells.” Favorable consideration is respectfully requested.

Allowable Subject Matter

Applicants wish to thank the Office for the indication of allowability of the subject matter recited in claims 6-7, 27, and 121 at page 11 of the April 23, 2007 Office Action.

§102(e) Positions

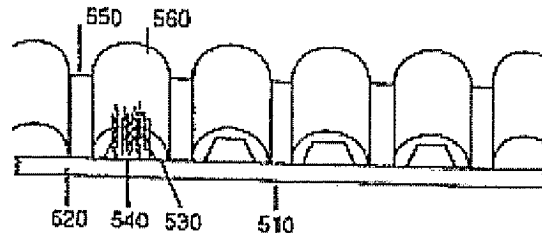
Applicants respectfully traverse the Office’s §102(e) position regarding claims 1-4, 12-13, and 20-26 in view of Rava. Applicants further traverse the Office’s §102(e) position regarding claims 1-2, 12-13, 15, 18-19, 20-26, and 28-29 in view of McDevitt.

With respect to Rava, the Office maintains that Figure 5, component 560 (a cross section of microtiter wells) comprises a pore that extends between through the top and bottom surfaces of the first layer (as recited in claim 1 for example). Applicants submit that this is not an accurate interpretation of Figure 5 (see embedded image below).

The description of Figure 5 provides:

FIG. 5 depicts a cross-section of this embodiment, showing the wafer 510 having a substrate 520 (preferably transparent to light) and a surface 530 to which is attached an array of probes 540. A channel wall 550 covers a probe array on the wafer, thereby creating well spaces 560. The wafer can be attached to the body by any attachment means known in the art, for example, gluing (e.g, by ultraviolet-curing epoxy or various sticking tapes), acoustic welding, sealing such as vacuum or suction

sealing, or even by relying on the weight of the body on the wafer to resist the flow of fluids between test wells. (See Section 0056).



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Figure 5 is a cross section of a wafer. The description provided in Rava at paragraph 0056 is self-explanatory. A fair read of Rava and inspection of the figure reveals that there is no pore described in Figure 5 that extends through any of the substrate layers reflected in Figure 5. Applicants' claims specifically recite in part:

"...a first layer comprising a non-conductive material further comprising a top surface and bottom surface comprising one or more pores each extending between, and through, said top and bottom surfaces,..."

Absent the teaching of a pore extending through the surfaces, Rava fails as an applicable reference under §102(e). Accordingly Applicants respectfully request withdrawal of the claim rejections in view of Rava.

Similarly, McDevitt, fails to teach a "pore" as recited in Applicants' claims.

McDevitt describes figure 2 as follows: "FIG. 2 depicts a particle disposed in a cavity."

(Col. 7, line 19). More specifically, McDevitt describes Figure 2 at Col. 12, lines 50-63:

In another embodiment, the supporting member may be formed using a silicon wafer as depicted in FIG. 2. The silicon wafer 210 may include a substantially transparent layer 220 formed on the bottom surface of the wafer. The cavities 230, in one embodiment, are formed by an anisotropic etch process of the silicon wafer. In one embodiment, anisotropic etching of the silicon wafer is accomplished using a wet hydroxide etch.

Photolithographic techniques may be used to define the locations of the cavities. The cavities may be formed such that the sidewalls of the cavities are substantially tapered at an angle of between about 50 to 60 degrees. Formation of such angled cavities may be accomplished by wet anisotropic etching of <100> silicon. The term "<100> silicon" refers to the crystal orientation of the silicon wafer. Other types of silicon, (e.g., <110> and <111> silicon) may lead to steeper angled sidewalls. For example, <111> silicon may lead to sidewalls formed at about 90 degrees. The angled sides of the cavities in some embodiments, serve as "mirror layers" which may improve the light collection efficiency of the cavities. The etch process may be controlled so that the formed cavities extend through the silicon wafer to the upper surface of transparent layer 220. While depicted as pyramidal, the cavities may be formed in a number of shapes including but not limited to, spherical, oval, cubic, or rectangular. An advantage to using a silicon wafer for the support member, is that the silicon material is substantially opaque to the light produced from the light source. Thus, the light may be inhibited from passing from one cavity to adjacent cavities. In this manner, light from one cavity may be inhibited from influencing the spectroscopic changes produced in an adjacent cavity. (Col. 12, lines 50-63)

McDevitt describes the antithesis of a "pore" insofar as it teaches a "cavity." McDevitt uses the described cavities as vehicles for conducting experiments. If the cavities were pores, like the pores presently recited in Applicants' claims, (*i.e.*, pores extending between, and through, said top and bottom surfaces) the reagents of McDevitt would leak from the cavities and defeat the purpose of the subject matter disclosed and claimed therein. A pore is not a cavity. Therefore, McDevitt fails as a reference under §102(e).

Based on the foregoing, Rava and McDevitt each fail to teach each of the claim recitations. Accordingly, Applicants submit that the Office should withdraw the rejections under §102(e). Favorable consideration is respectfully requested.

§103 Positions

Applicants respectfully traverse the Office's §103 position(s) with respect to claim 5 (Rava and Marra), claims 8-9 (Rava or McDevitt and Baumann), claims 10-11

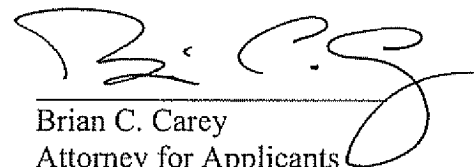
(Rava or McDevitt and Bossuyt), claim 14 (McDevitt), claim 16 (McDevitt and Bukoski), claim 17 (McDevitt and Smith), and claims 30-31 (McDevitt and Owen).

As described above, neither Rava nor McDevitt teach each of the claim recitations (*e.g.*, a pore in the substrate). None of the references cited under §103 supplement the teachings of Rava or McDevitt. That is, the Office relies on multiple references (*e.g.*, Marra, Bossuyt, Bukoski, Smith, and Owen) to supplement Rava and/or McDevitt for the subject matter recited in the dependent claims (*e.g.*, substrate material, cell type assayed, etc.). The 'supplemental' references do not teach or suggest the elements recited in the claims, alone or in combination with Rava and/or McDevitt. Without a teaching or suggestion of each of the claim recitations, the rejections under §103 fail. Favorable consideration is respectfully requested.

Should the Office wish to discuss the claims in detail, please contact the undersigned.

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